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Appeal Brief 2861
D. Smalls-Lapin
7-9-03
AF

Patent Application
Attorney Docket No. D/99720C

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Inventor(s): Brian E. Springett, et al.

Application No.: 10/010,202

Filed: December 10, 2001

Examiner: H. Tran

Art Unit: 2861

Title: TRANSFER SHEET PRINTING PROCESS
FOR DECORATING ARTICLES FORMED BY
USING A DIGITALLY CONTROLLED PRINTING
MACHINE

Commissioner for Patents
Washington, D.C. 20231

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Elaine Zahn

March 27, 2003

Date of Signature

LETTER

Enclosed herewith is an original and two copies of Appellants Brief
on Appeal in the above-identified application.

Please charge any fees associated with the filing of the Brief on
Appeal to Xerox Corporation, Deposit Account No. 24-0025. Two duplicate
copies of this letter are enclosed.

Respectfully submitted,

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TC 2800 MAIL ROOM

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PATENT APPLICATION
ATTORNEY DOCKET NO. D/99720C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

BRIAN E. SPRINGETT, ET AL.

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TC 2800 MAIL ROOM

Application for Patent

Application No.: 10/010,202	:	Examiner: H. Tran
Filed: December 10, 2001	:	Art Unit: 2861

**TRANSFER SHEET PRINTING PROCESS FOR DECORATING ARTICLES
FORMED BY USING A DIGITALLY CONTROLLED
PRINTING MACHINE**

BRIEF ON APPEAL

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1. REAL PARTY IN INTEREST:

Xerox Corporation, assignee of the present patent application.

2. RELATED APPEALS AND INTERFERENCES:

None.

3. STATUS OF CLAIMS

The claims presently pending are claims 1, 2, 4-6 and 8-10. Claims 3 and 7 were previously canceled. The claims presently appealed are claims 1, 2, 4-6 and 8-10.

4. STATUS OF AMENDMENTS:

No amendment was filed subsequent to final rejection.

5. SUMMARY OF INVENTION:

A transfer sheet for applying a colored pattern to a final support material through the application of heat and pressure includes a carrier sheet having a colored pattern printed on a surface thereof. A digitally-controlled color printer is used to print a colored pattern on the surface of the carrier sheet. A layer of white colored material is printed over the color pattern with the digitally-controlled color printer. A layer of glue, deposited over the layer of white colored material, may be printed by the digitally-controlled color printer, if required. (See, e.g., the application, at page 27, lines 4-12.)

6. **ISSUES:**

A. In a matter involving construction of a product-by-process claim, does patentability of the product depend upon its method of production? [Yes. See, e.g., Lexis headnotes 11-13 and portion of the opinion associated with Lexis headnotes 11-13, in the case of *Atlantic Thermoplastics v. Faytex*, 970 F.2d 834; 1992 U.S. App. LEXIS 15888; 23 USPQ2d 1481 (Fed. Cir., 1992).

B. Is the principle of : ‘...that which will infringe, if later, will anticipate if earlier’ applicable *only* to an infringement analysis? [No. See, e.g., Lexis headnote 12 and text relative to Lexis headnote 12 in *Beckson Marine v. NFM*, 292 F.3d 718, 2002 U.S. App. LEXIS 10282, 63 USPQ2d 1031 (Fed. Cir., 2002).

7. **GROUPING OF CLAIMS:**

WO 97/21867 to Franke is the grounds of rejection which the Examiner has applied to claims 1, 2, 4-6 and 8-10. The Appellants contest this grounds of rejection.

The claims of this group (i.e., claims 1, 2, 4-6 and 8-10) do ***not*** stand or fall together. The claims ***are*** distinguishable over WO 97/21867 to Franke.

In that regard, the Examiner wrote :

“Franke discloses a transfer sheet including a carrier sheet; a one- or multi-colored pattern printed on the carrier sheet using a digitally controlled color printer; ***a transparent or white-pigmented layer printed*** configuratively ***by silk screen printing*** on the pattern; a layer of heat activatable,

[thermoplastic] polymeric ***glue layer positioned over*** at least ***said white-pigmented layer*** or ***the transparent or white-pigmented layer includes an adhesive***" (emphasis added).

Page 2 of Paper No. 6.

To that end, claims 1, 2, 4, 9 and 10 (each independent) may be distinguished over WO 97/21867 to Franke as follows.

Present claim 1 is directed to a transfer sheet, including : a carrier sheet; ***a colored pattern printed*** on a surface of said carrier sheet ***using*** at least ***one digitally controlled color printer***, and ***a layer of white colored material printed*** over at least the colored pattern ***using the digitally controlled color printer***. [Support may, e.g., be found in the above-captioned patent application (Serial No. 10/010,202) at page 7, lines 11-17; at page 8, lines 1-5; and at page 8, line 26 to page 13, line 10 (emphasis added).]

Present claim 2 is directed to a transfer sheet, including : a carrier sheet; ***a colored pattern printed*** on a surface of said carrier sheet ***using*** at least ***one digitally controlled color printer***, and ***a layer of white colored material printed*** over at least the colored pattern ***using the digitally controlled color printer*** further ***including a layer of glue positioned over*** at least ***said layer of white colored material*** wherein said layer of glue includes a heat activatable thermoplastic polymeric glue. [Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; at page 14, lines 9-18; and at page 17, lines 24-25 (emphasis added).] **Present claim 8**, dependent upon claim 2, recites, in relevant part, that ***the layer of glue is printed over the layer of white colored material by using the digitally-controlled color printer***. [Support may, e.g., be found in the application at page 17, line 24 through page 18, line 21 (emphasis added).]

Present claim 4 is directed to a transfer sheet, including : a carrier sheet; ***a colored pattern printed*** on a surface of said carrier sheet ***using*** at least ***one digitally controlled color printer***, and ***a layer of white colored material printed*** over at least the colored pattern ***using the digitally controlled color printer*** wherein said colored pattern includes : a first layer of colored material; and a second layer of colored material with said first layer of colored material being of a different color than said second layer of colored material. [Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; at, e.g., page 7, line 26 through page 8, line 5; and, e.g., at page 9, lines 7-9 (emphasis added).] **Present claim 5**, dependent upon claim 4, recites, in relevant part, that the first and second layers are printed on the carrier sheet in superimposed registration with each other. [Support may, e.g., be found in the application at page 16, line 27 through page 17, line 4.] **Present claim 6**, dependent upon claim 5, recites, in relevant part, that the layer of white colored material is printed over the first and second layers. [Support may be found in the application at page 17, lines 15-18.]

Present claim 9 is directed to a transfer sheet, including : a carrier sheet; ***a colored pattern printed*** on a surface of said carrier sheet ***using*** at least ***one digitally controlled color printer***, and ***a layer of white colored material printed*** over at least the colored pattern ***using the digitally controlled color printer*** wherein said layer of white colored material ***includes a toner material***. [Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; and at page 12, line 26 through page 13, line 19 (emphasis added).]

Present claim 10 is directed to a transfer sheet, including : a carrier sheet; ***a colored pattern printed*** on a surface of said carrier sheet ***using*** at least ***one digitally controlled color printer***, and ***a layer of white colored material printed*** over at least the colored pattern ***using the digitally controlled***

color printer further including a transparent layer printed on the surface of said carrier sheet with said colored pattern being printed thereover. [Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; and at page 18, lines 22-27 (emphasis added).]

8. ARGUMENTS:

Thus, Applicants' claim 1 is directed, among other things, to *a layer of white colored material printed...using [a] digitally controlled color printer*, whereas Franke, in sharp contrast, discloses "a...white-pigmented layer printed...by silk screen printing".

Also, Applicants' claim 2 is directed, among other things, to *a layer of white colored material printed...using [a] digitally controlled color printer*, whereas Franke, in sharp contrast, discloses "a...white-pigmented layer printed...by silk screen printing". Applicants' claim 8 depends from claim 2.

Similarly, Applicants' claim 4 is directed, among other things, to *a layer of white colored material printed...using [a] digitally controlled color printer*, whereas Franke, in sharp contrast, discloses "a...white-pigmented layer printed...by silk screen printing". Applicants' claim 5 depends from claim 4; and claim 6 depends from claim 5.

Moreover, Applicants' claim 9 is directed, among other things, to *a layer of white colored material printed...using [a] digitally controlled color printer*, whereas Franke, in sharp contrast, discloses "a...white-pigmented layer printed...by silk screen printing".

Finally, Applicants' claim 10 is directed, among other things, to *a layer of white colored material printed...using [a] digitally controlled color printer*, whereas

Franke, in sharp contrast, discloses “a...white-pigmented layer printed...by silk screen printing”.

Thus, the claims presently before the Board of Patent Appeals and Interferences are claims 1, 2, 4-6 and 8-10, which claims the Examiner rejected under §102(b) over Franke (WO 97/21867), for reasons set forth at pages 2-3 of Paper Nos. 4 and 6.

In particular, the Examiner has taken the position that :

“Franke discloses a transfer sheet including a carrier sheet; a one- or multi-colored pattern printed on the carrier sheet using a digitally controlled color printer; ***a transparent or white-pigmented layer printed*** configuratively ***by silk screen printing*** on the pattern; a layer of heat activatable, [thermoplastic] polymeric ***glue layer positioned over*** at least ***said white-pigmented layer or the transparent or white-pigmented layer includes an adhesive***” (emphasis added).

See page 2 of Paper No. 6.

With respect to the product itself, the Examiner has taken the position that:

...“Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product *does* not depend on its method of production.” (citing *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(emphasis added, by Appellants).

See, in particular, page 2 of Paper No. 6.

Appellants agree with the principle that “patentability is based on the product itself”; but respectfully suggest that current case law stands for the proposition that the patentability of a product **does** depend on its method of production. See, e.g., Lexis headnotes 11-13 and that portion of the opinion associated with Lexis headnotes 11-13, in the case of *Atlantic Thermoplastics v. Faytex*, 970 F.2d 834; 1992 U.S. App. LEXIS 15888; 23 USPQ2d 1481 (Fed. Cir., 1992).

Consider also that the patentability of the product, in general, may, e.g., be based on the principle that “[a]nticipation under 35 USC §102 requires the presence in a single prior art disclosure of each and every element of a claimed invention.” *Lewmar Marine v. Barient*, 827 F.2d 744; 1987 U.S. App. LEXIS 496; 3 USPQ2d 1766 (Fed. Cir., 1987).

Further in that regard, “[t]he classic test of anticipation provides : ‘That which will infringe, if later, will anticipate if earlier.’... .” *Lewmar Marine v. Barient*, 827 F.2d 744; 1987 U.S. App. LEXIS 496; 3 USPQ2d 1766. Since product-by-process claims are limited by and defined by the process, it therefore logically follows that Franke may **not** properly be cited as a 35 USC §102 reference against Applicants’ claims, **if** the claims presently before the Examiner disclose a process limitation **not** disclosed in Franke.

Moreover, “the rule is well established that where one has produced an article in which invention rests over prior art articles, and where it is not possible to define the characteristics which make it inventive except by referring to the process by which the article is made, he is permitted to so claim his article, but is limited in his protection to articles produced by his method referred to in the claims.” *Atlantic Thermoplastics v. Faytex*, 970 F.2d 834; 1992 U.S. App. LEXIS 15888; 23 USPQ2d 1481 (Fed. Cir., 1992).

In this regard, it is accordingly respectfully submitted that it is not possible to define the characteristics which make claims 1, 2, 4 and 8-10 inventive over the prior art ***except by referring to the process*** by which each such claimed article is made.

The Examiner, however, has taken the position that :

“This argument is not persuasive because the cited case law is applicable in an *infringement* analysis rather than in a determination for *patentability*.”

See page 3 of Paper No. 6; emphasis added.

Appellants submit that the Examiner’s rejection of claims 1, 2, 4-6 and 8-10 under 35 USC §102 based on Franke (WO 97/21867) is in error. 37 CFR §1.192(c)(8)(iii).

In that regard, Appellants respectfully submit that the *basis* of the Examiner’s analysis (i.e., whether infringement or patentability) is *irrelevant*. The underlying principle, regardless of the basis, is simply this : “In a patent case, that which will literally infringe, if later, will anticipate, if earlier.” For instance, a case articulating this principle in a *patentability* determination had the following to say :

"At one point, Beckson asserted that the NFM oval portlight literally infringed the '350 claims. This assertion, however, does not serve as an admission that the '350 patent encompasses the prior art, thus rendering that patent invalid. Beckson's allegation of

infringement before it realized that the oval portlight was prior art was based on its subjective belief at the time regarding the scope of its claims. These litigation theories - to the extent not expressed in claim language, the patent specification, or the prosecution history - do not affect claim scope or bear on patent validity. Thus, Beckson's assertion of infringement, standing alone, does not admit the invalidity of the '350 patent. On the other hand, if the record shows that Beckson asserted infringement against the NFM oval portlight based on a claim construction identical to the correct judicial claim construction, then Beckson's assertion could serve as additional evidence of invalidity, or even anticipation. After all, that which [literally] infringe, if later, will anticipate, if earlier".

"Thus, on remand, the trial court will have the opportunity to consider NFM's oval portlight **prior art** in light of a complete claim construction. If the NFM oval portlight has each and every limitation of the claimed invention, **it will anticipate** the '350 patent and render it invalid."

See, in particular, Lexis headnotes 11 and 12 and text relative to Lexis headnotes 11 and 12 in *Beckson Marine v. NFM*, 292 F.3d 718, 2002 U.S. App. LEXIS 10282, 63 USPQ2d 1031 (Fed. Cir., 2002); emphasis added.

CONCLUSION

In conclusion, the rejection by the Examiner of claims 1, 2, 4-6 and 8-10 under 35 USC §102 based on Franke (WO 97/21867) is in error. 37 CFR §1.192(c)(8)(iii).

In view of the above, it is believed that the claims presently before the Patent Office are patentably distinguishable over WO 97/21867 to Franke. For these reasons, it is respectfully urged that the Examiner's rejection be reversed.

Accordingly, an early action to that effect is respectfully solicited.

Appellants' Brief — Authorities and Arguments

Authorities on which Appellants will rely, to maintain this Appeal, are :

- *In re Thorpe*, 777 F.2d 695, 1985 U.S. App. LEXIS 15329, 227 USPQ 964, 966 (Fed. Cir., 1985).
- *Lewmar Marine v. Barient*, 827 F.2d 744; 1987 U.S. App. LEXIS 496; 3 USPQ2d 1766 (Fed. Cir., 1987).
- *Atlantic Thermoplastics v. Faytex*, 970 F.2d 834; 1992 U.S. App. LEXIS 15888; 23 USPQ2d 1481 (Fed. Cir., 1992).

- *Beckson Marine v. NFM*, 292 F.3d 718, 2002 U.S. App. LEXIS 10282, 63 USPQ2d 1031 (Fed. Cir., 2002).

37 CFR §1.192(a).

Arguments on which Appellants will rely, to maintain this Appeal, are set forth in the “**Issues**” and “**Arguments**” sections appearing above. 37 CFR §1.192(a).

CLOSING REMARKS

The above-captioned application filed under 35 USC §120 and 37 CFR §1.53(b) and §1.78(a) is a continuation of U.S. Serial No. 09/454,834 filed December 6, 1999. With respect to the parent application (i.e., U.S. Serial No. 09/454,834), claims 11-40 (of the original 40 claims) issued April 9, 2002 as claims 1-30 of U.S. Patent 6,369,843 B1.

Claims 1, 2, 4-6 and 8-10 (of original claims 1-10 of the original 40 claims of U.S. Serial No. 09/454,834) are the subject of this continuation application (i.e., U.S. Ser. No. 10/010,202), presently on Appeal to the Board of Patent Appeals and Interferences.

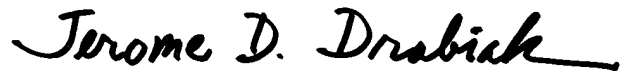
For continuity purposes pursuant to 35 USC §112 and 37 CFR §1.51(b), claim 1 links the priority document (Ser. No. 09/454,834 filed 12/6/99) to the present application.

In any event, original claim 1 is presently also subject to this appeal.

S rial No. 10/010,202

In particular, all previous offers, suggestions and other statements regarding "canceling claim 1 via examiner's amendment" are hereby expressly withdrawn.

Respectfully submitted,



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March 27, 2003

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9. **APPENDIX**

A copy of the claims (i.e., claims 1, 2, 4-6 and 8-10) involved in the appeal are as follows :

1. A transfer sheet, including;
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer.
2. A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer further including a layer of glue positioned over at least said layer of white colored material wherein said layer of glue includes a heat activatable thermoplastic polymeric glue.

4. A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer wherein said colored pattern includes:
a first layer of colored material; and
a second layer of colored material with said first layer of colored material being of a different color than said second layer of colored material.

5. A transfer sheet according to **claim 4**, wherein said first layer and said second layer are printed on said carrier sheet at least partially in superimposed registration with one another.

6. A transfer sheet according to **claim 5**, wherein said layer of white colored material is printed over said first layer and said second layer.

8. A transfer sheet according to **claim 2**, wherein said layer of glue is printed over said layer of white colored material by using the digitally controlled color printer.

9. A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer wherein said layer of white colored material includes a toner material.

Serial No. 10/010,202

10. A transfer sheet, including:

a carrier sheet;

a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and

a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer further including a transparent layer printed on the surface of said carrier sheet with said colored pattern being printed thereover.

FULL TEXT OF CASES (USPQ FIRST SERIES)
In re GARNERO, 162 USPQ 221 (CCPA 1969)

In re GARNERO

(CCPA)
162 USPQ 221

Decided June 26, 1969
No. 8172

U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Claims—Article defined by process of manufacture (§ 20.15)

Mere presence of method limitation in article claim which is otherwise allowable does not so poison claim as to render it unpatentable.—In re Garnero (CCPA) 162 USPQ 221.

2. Claims—"Comprising," "Consisting," etc. (§ 20.30)

"Consisting essentially of" terminology in claim excludes additional unspecified ingredients which would affect basic and novel characteristics of product defined in balance of claim.—In re Garnero (CCPA) 162 USPQ 221.

Particular patents—Structural Material

Garnero, Structural Material of Expanded Minerals and Method for Manufacture, claims 1 and 9 of application allowed.—In re Garnero (CCPA) 162 USPQ 221.

Case History and Disposition:

Appeal from Board of Appeals of the Patent Office.

Application for patent of Anthony L. Garnero, Serial No. 381,145, filed July 8, 1964; Patent Office Group 160. From decision rejecting claims 1 and 9, applicant appeals. Reversed.

See also 145 USPQ 457.

Attorneys:

HERMAN HERSH and MCDUGALL, HERSH, SCOTT & LADD, both of Chicago, Ill. (GEORGE A. DEGNAN, Washington, D. C., of counsel) for appellant.

JOSEPH SCHIMMEL (FRED W. SHERLING of counsel) for Commissioner of Patents.

Judge:

Before RICH, Acting Chief Judge, HOLTZOFF and MCLAUGHLIN, Judges, sitting by designation, and ALMOND and BALDWIN, Associate Judges.

Opinion Text

Opinion By:

BALDWIN, Judge.

This appeal is from the Patent Office Board of Appeals decision affirming the examiner's rejection of two claims ¹ of appellant's application ² as unpatentable

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under 35 U.S.C. 103, claim 1 being rejected on Thomas ³ in view of Pierce ⁴ and claim 9 being rejected on the same combination of references further in view of Ford. ⁵ No claim has been allowed.

The Invention

The invention relates to a thermal insulation panel formed from expanded perlite particles. The particles are held together without any additional material, such as an external bonding agent, by interfusion between the surfaces of the perlite particles. Interfusion is effected by taking the initially unexpanded perlite particles and heating them rapidly for expansion so that combined water associated with the particles is released as a vapor which operates as a flux which enables the particles to become stuck together at temperatures as low as 1400 °F. ⁶ The specification describes the product as "having a density which may vary from 1 pound per cubic foot to as much as 80 pounds per cubic foot while still maintaining a porosity and a mass integrity sufficient to enable use thereof as a structural insulation material."

Claims 1 and 9 read:

1. A composite, porous, thermal insulation panel characterized by dimensional stability and structural strength consisting essentially of expanded perlite particles which are interbonded one to another by interfusion between the surfaces of the perlite particles while in a pyroplastic state to form a porous perlite panel.
9. An insulation panel as claimed in Claim 1 in which the panel is formed in cross-section with layers of different densities.

The References

Thomas discloses a pipe insulating composition which utilizes sodium silicate as a binding agent to hold already expanded perlite particles together, with sodium chloride being used as a setting agent. A mixture of the expanded perlite, the sodium silicate binder, and the sodium chloride setting agent are subjected to a compression from 5 to 7 tons per square foot, at ambient temperature, to produce articles formed of the composition. Prior to compression, Thomas' aggregate mixture has a density of 4 to 10 pounds per cubic foot.

Pierce discloses a building material utilizing expanded perlite particles which are mixed with hot hydrated lime (CaO) at a temperature of about 300° F. Pierce states that "the exterior of the granules reacts chemically to bind the entire mass together." The specification discloses that the end product may have a density of 40-50 pounds per cubic foot.

Ford discloses cellular glass pellets having a core of highly cellulated glass, an intermediate layer of less highly cellulated glass, and an outer layer of substantially uncellulated glass, thus demonstrating a panel having a cross-section of varying density.

The Rejection

Sustaining the examiner's rejection of claim 1 as being unpatentable over Thomas in view of Pierce under 35 U.S.C. 103, the board stated:

The language used by Pierce is considered to be readable on "interbonding by interfusion" as expressed in the claims at issue. Albeit that the condition limitations appear to differ somewhat from the details of the process described by the patentees, we are apprised of no facts which would lead us to conclude that the instantly claimed product necessarily would be patentably unique when compared to that resulting from the prior art methods.

The board rejected arguments by appellant that the inclusion in the claim of the phrase "consisting essentially of" would exclude the presence of an ex

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ternal binder and thus distinguish from the composition of Thomas which uses a sodium silicate binder and that the phrase "expanded perlite particles which are interbonded one to another by interfusion between the surfaces" distinguishes from the chemical bonding of Pierce which employs lime as an additional ingredient. Instead the board noted the existence of other claims (now cancelled) adding other limitations to claim 1 and stated:

[T]he recital of "consisting essentially" renders a claim open only for the inclusion of unspecified ingredients which would not materially affect the basic and novel characteristics of the product defined in the balance of the claim. * * * Where, as here, other claims indicate that particular components are not excluded by the words "consisting essentially of", appellant's arguments as to the existence of diverse reaction mechanisms in the prior art processes cannot be accepted as conclusive of a factual patentable distinction in his claimed product.

The examiner's rejection of claim 9 on the ground that the feature of different densities in different layers would be an obvious modification in view of Ford, was affirmed by the board in that:

Appellant has urged no patentable merit in the specific modifications set forth in claims 5 through 9, and we perceive none.

Opinion

On appeal the solicitor's position appears to be that the only distinction between appellant's *product* and the *products* of the prior art is the *process* by which appellant's product is made; and, as that *process* has been found to be unpatentable in our previous decision of *In re Camero*, 52 CCPA 1370, 345 F.2d 589, 145 USPQ 457 (1965), then the *product* claims are likewise unpatentable. The solicitor is in effect reading claim 1, which recites "expanded perlite particles which are interbonded one to another by interfusion between the surfaces of the perlite particles while in a pyroplastic state to form a porous perlite panel," as a product claim containing a process limitation and then applying the rationale expressed by this court in *In re Stephens*, 52 CCPA 1409, 345 F.2d 1020, 145 USPQ 656 (1965); and *In re Dilnot*, 49 CCPA 1015, 300 F.2d 945, 133 USPQ 289 (1962).

The trouble with the solicitor's approach is that it necessarily assumes that claim 1 should be construed as a product claim containing a process, rather than structural, limitation. However, it seems to us that the recitation of the particles as "interbonded one to another by interfusion between the surfaces of the perlite particles" is as capable of being construed as a structural limitation as "intmixed," "ground in place," "press fitted," "etched," and "welded," all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations. ²The correct inquiry therefore, it appears to us, is whether the product defined by claim 1 is patentably distinguishable over the disclosures of Thomas and Pierce in view of the *structural* limitation defining the panel as "consisting essentially of expanded perlite particles * * * interbonded one to another by interfusion between the surfaces of the perlite particles." ³Neither Thomas nor Pierce disclose expanded perlite particles *interbonded one to another by interfusion between the surfaces thereof*; it is not therefore reasonable to view such interbonding to be obvious by considering the references collectively.

[2] Moreover, the "consisting essentially of * * *" terminology would, as the board pointed out, exclude additional unspecified ingredients which would affect the basic and novel characteristics of the product defined in the balance of the claim. However, to follow the teachings of Thomas combined in any manner with Pierce, would *require* the presence of at least one additional material with the expanded perlite, whether it be the sodium silicate binder of Thomas or the hydrated lime which Pierce uses to provide a chemical joining action. In either event it cannot be said that the additional ingredient would not materially affect the basic

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and novel characteristic of appellant's product which is that the perlite particles are held together *without* any additional material.

The rejections of claims 1 and 9 are therefore *reversed*. As to claims 2 and 5-8, the other claims initially appealed but not pursued, the appeal is dismissed.

MCLAUGHLIN, Judge, concurs in the result.

Footnotes

Footnote 1. The rejections of only claims 1 and 9 are pursued on appeal here.

Footnote 2. Serial No. 381,145, filed July 8, 1964, for "Structural Material of Expanded Minerals and Method for Manufacture," allegedly a continuation of application serial No. 714,831, filed February 12, 1958, for "Structural Material of Expanded Minerals and Method for Manufacturing." The parent application was before this court in *In re Camero*, 52 CCPA 1370, 345 F.2d 589, 145 USPQ 457 (1965), and we there affirmed the rejection of claims directed to a method of manufacturing an expanded perlite structure as being obvious under 35 U.S.C. 103 in view of certain, different prior art cited in that case.

Footnote 3. U. S. Patent 2,600,812, issued June 17, 1952.

Footnote 4. U. S. Patent 2,517,235, issued August 1, 1950.

Footnote 5. U. S. Patent 2,691,248, issued October 12, 1954.

Footnote 6. Thus, appellant's specification states:

Fusion believed to be necessary for adhesion occurs with the average perlite at a temperature within the range of 2000-2200° F. It has been found, however, that the combined water which is released as a vapor when the perlite particles are heated to a pyroplastic state operates as a flux which enables the desired stickiness to develop for agglomeration when the particles are heated to a temperature as low as 1400° F. but preferably at a temperature above 1600° F. Thus agglomeration can be achieved at a temperature starting at 1400° F. Best adhesions and expansions are secured when the particles are heated to a temperature above 1800° F. Thus the preferred conditions for operation from the standpoint of expansion and agglomeration will reside in heating the particles to a temperature of 1800-2200° F.

Footnote 7. Saxe and Levitt, *Product by Process Claims and Their Current Status in Chemical Patent Office Practice*, 42 JPOS 528, 536, 537 (August 1960), and cases collected thereat.

See also a recent decision of this court in *In re Steppan*, 55 CCPA 791, 394 F.2d 1013, 156 USPQ 143 (1967), in which we found that use of the term "condensation product" in a chemical claim to a product did not thereby render the claim a product-by-process claim.

Footnote 8. [1] Taking the view we do that the just recited limitation is structural in nature we do not find it necessary to consider the additional recitation "while in a pyroplastic state * * *" as the mere presence of a method limitation in an article claim which is otherwise allowable would not so poison the claim as to render it unpatentable. *Ex parte Lindberg*, 152 USPQ 606 (P.O. Bd. App. 1967).

- End of Case -

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